

Climate Change: How Recycling & Composting Reduce Greenhouse Gases

Lessons Learned from The Alameda County
Climate Action Project

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Who is StopWaste.Org

Alameda County Waste Management
Authority

Mission:

- Help the County achieve a 75% diversion rate by 2010.

Our Programs

- Business recycling program
- Home composting bins
- Promote food scrap recycling
- School recycling program
- Green building program
- Bay-Friendly gardening & landscaping
- Environmental procurement program

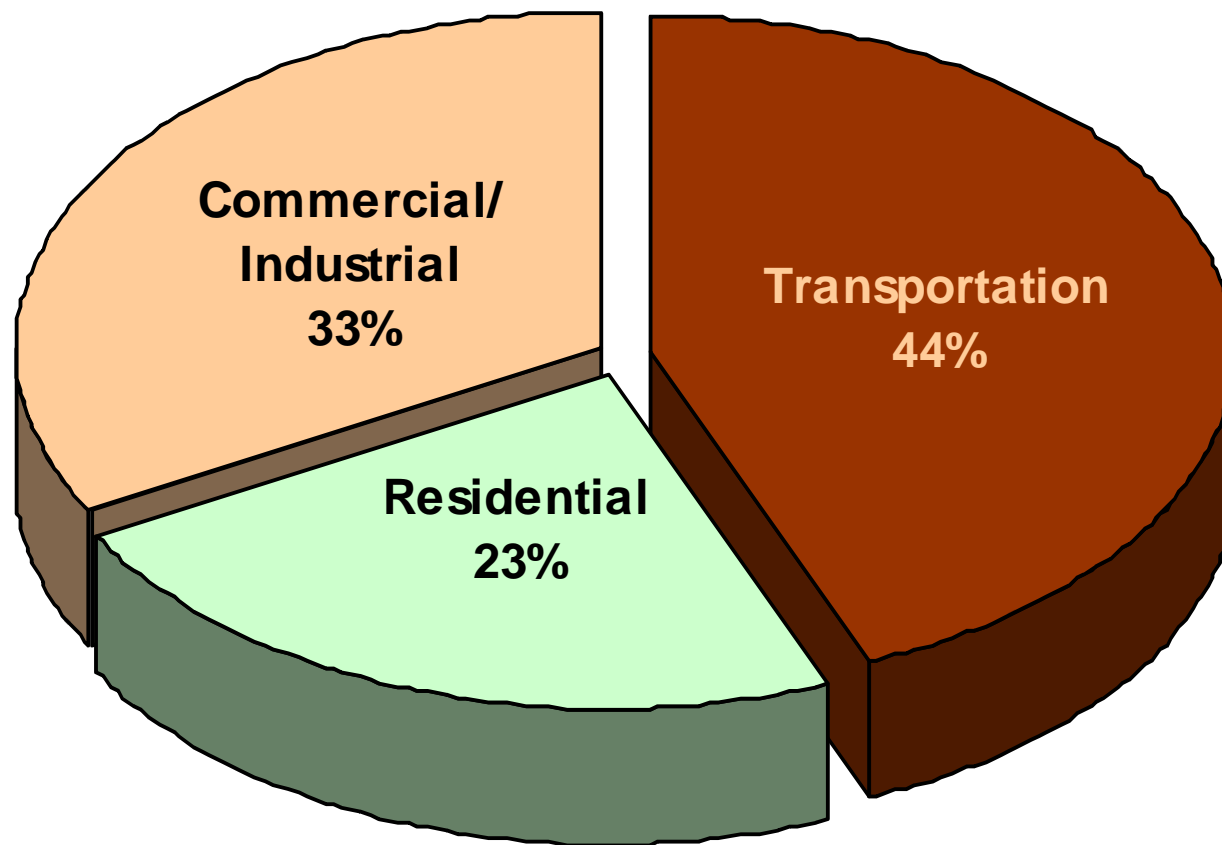
Alameda Co.Climate Action Project with ICLEI

- **Develop Baseline GHG Inventories**
- **Draft Action Plan**
- **Assist Cities with Target Setting**

Greenhouse Gases & Connection to Recycling/Composting

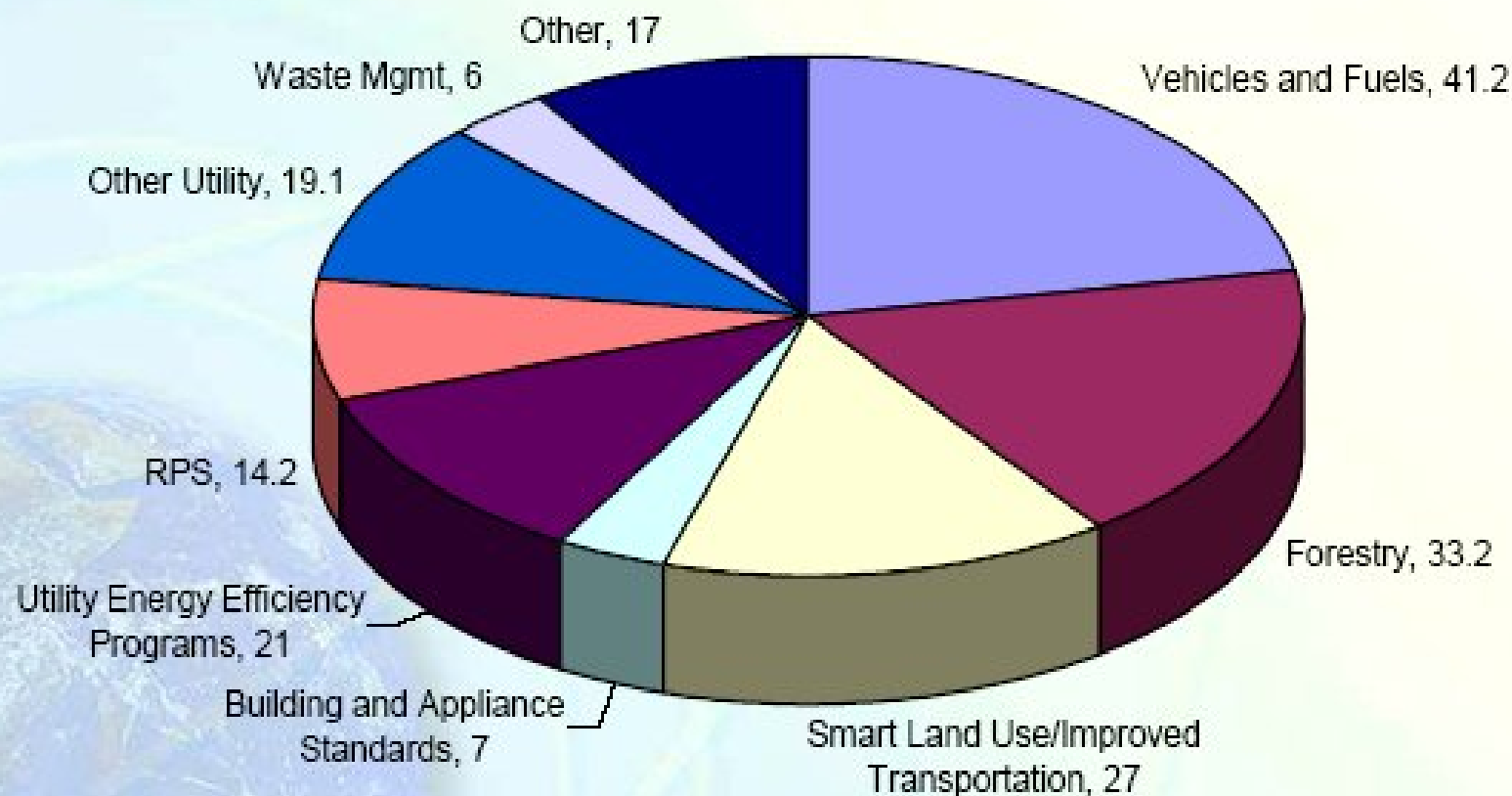
- **Carbon Dioxide, CO₂: Transportation; energy**
- **Methane, CH₄: Landfills**
- **Nitrous Oxide, N₂O: Fertilizers**

Alameda Co. GHG's by Sector



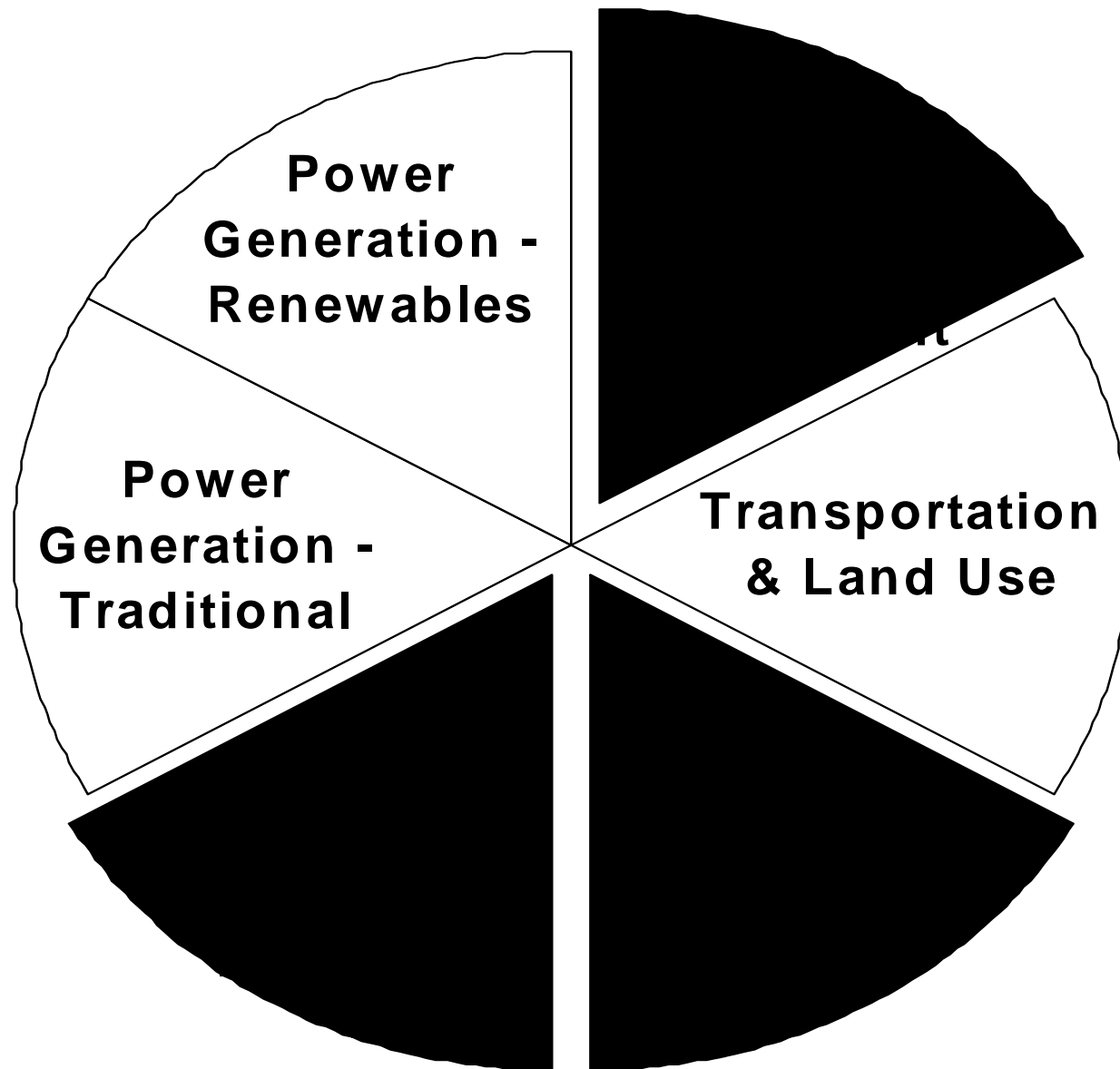
Traditional View

Sources of Potential Reductions (Million Metric Tons CO2 Equivalent)



Source: March 2006 Climate Action Team Report

Emissions Reduction Strategies: Our View



What's Left in the Waste stream?

Organics = 50% (or 20 million tons/yr) Buried

Food:	14%	5.0 MT
Contaminated Paper:	9%	3.6 MT
Wood:	9%	3.8 MT
Recyclable Paper:	6%	2.3 MT
Cardboard	6%	2.3 MT
Yard debris:	7%	2.8 MT

How does Composting Reduce Greenhouse Gas

- Reduces landfill methane generation
- Reduces use of N_2O fertilizers and energy intensive pesticides.
- Sequesters carbon in soil.
- Improves soil health, mitigates damage to soil caused by climate change.

How Does Recycling Reduce Greenhouse Gases

- Reduces transportation required to haul virgin goods/packages
- Reduces energy needed to make goods/packages
- Reduces fuel consumed in hauling waste to landfill.
- Reduces methane in landfill from decomposing paper, cardboard, food.

Non-traditional Emissions Reductions Strategies

- Green Building Practices (GreenPoints & LEED)
- Bay Friendly Landscaping & Gardening
- Food scrap recycling
- Buying recycled products
- Business recycling & waste diversion practices



Emissions Reduction Findings



- Every new GreenPoint Rated home $\approx 5\text{T eCO}_2$
- Divert 1 Ton of food scraps from landfill $\approx \frac{1}{4}\text{T eCO}_2$
- Every acre of Bay-Friendly Landscape $\approx 4\text{T eCO}_2$
- Reuse 1 Ton of cardboard boxes $\approx 1.8\text{T eCO}_2$
- Recycle 1 Ton of plastic film $\approx 2.5\text{T eCO}_2$
- Recycle 1 ton of mixed paper $\approx 1\text{ T eCO}_2$

What You Can Do

- Remodel your home using Green Remodeling Guidelines.
- Landscape using Bay-Friendly Gardening Guidelines.
- Recycle more mixed paper & cardboard each week.
- Encourage recycling programs at your workplace.
- Start backyard composting & put food scraps in yard waste
- Buy less disposable products
- Buy recycled content products



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Good Resources:

- www.epa.gov/climatechange/wycd/calculator/index.html
- www.epa.gov/climatechange/kids/index.html
- www.stopwaste.org
- www.iclei.org
- www.climatechange.ca.gov